CODE ANALYSIS

APPLICABLE CODES			
	Year		Year
International Building Code	2006	National Electrical Code	
International Mechanical Code		Uniform Code for	
International Plumbing Code		Building Conservation	
International Fire Code		ADA Accessibility	
International Energy Conservation Code		Guildelines	

A. Occupancy and Group: _____ _____ _____ _____ _____

Change in Use: Yes _____ No _____ Mixed Occupancy: Yes _____ No _____
Special Use and Occupancy (e.g. High Rise, Covered Mall): _____

B. Seismic Design Category: _____ Design Wind Speed: _____ mph

C. Type of Construction (circle one):

I A | I B | II A | II B | III A | III B | IV HT | V A | V B

D. Fire Resistance Rating Requirements for the Exterior Walls based on the fire separation distance (in hours):
North: _____ South: _____ East: _____ West: _____

E. Mixed Occupancies: _____ Nonseparated Uses: _____

F: Sprinklers:
Required: _____ Provided: _____ Type of Sprinkler System: _____

G: Number of Stories: _____ Building Height: _____

H: Actual Area per Floor (square feet): _____

I: Tabular Area: _____

J: Area Modifications:

a) $A_a = A_t + \left[\frac{A_t \, I_f}{100}\right] + \left[\frac{A_t \, I_s}{100}\right]$ $\qquad I_f = 100\left[\frac{F}{P} - 0.25\right]\frac{W}{30}$

b) Sum of the Ratio Calculations for Mixed Occupancies:

$\frac{\text{Actual Area}}{\text{Allowable Area}} \leq 1$

c) Total Allowable Area for:
1) One Story: _____
2) Two Story: A_a(2)_____
3) Three Story: A_a(3)_____

d) Unlimited Area Building: Yes _____ No _____ Code Section: _____

K. Fire Resistance Rating Requirements for Building Elements (hours).

Element	Hours	Assembly Listing	Element	Hours	Assembly Listing
Exterior Bearing Walls			Floors - Ceiling Floors		
Interior Bearing Walls			Roofs - Ceiling Roofs		
Exterior Non-Bearing Walls			Exterior Doors and Windows		
Structural Frame			Shaft Enclosures		
Partitions - Permanent			Fire Walls		
Fire Barriers			Fire Partitions		
			Smoke Partitions		

L. Design Occupant Load: _____
Exit Width Required: _____ Exit Width Provided: _____

M. Minimum Number of Required Plumbing Facilities:
a) Water Closets - Required (m) _____ (f) _____ Provided (m) _____ (f) _____
b) Lavatories - Required (m) _____ (f) _____ Provided (m) _____ (f) _____
c) Bath Tubs or Showers: _____
d) Drinking Fountains: _____ Service Sinks: _____

FOOTNOTES:
1) In case of conflict with the U.S. Department of Justice Federal Registers Parts I through V - ADA Guidelines and specific reference to the International Building Code Accessibility Chapters, the more restrictive requirement shall govern.

2) Additional Code Information shall be provided at the discretion of the Building Official for Complex Buildings. Including, but not limited to:
a) High Rise Requirements.
b) Atriums.
c) Performance Based Criteria.
d) Means or Egress Analysis.
e) Fire Assembly Locator Sheet.
f) Exterior and Interior Accessibility Route.
g) Fire Stopping, Including Tested Design Number.

State of Utah—Department of Administrative Services

DIVISION OF FACILITIES CONSTRUCTION AND MANAGEMENT

4110 State Office Building/Salt Lake City, Utah 84114/538-3018

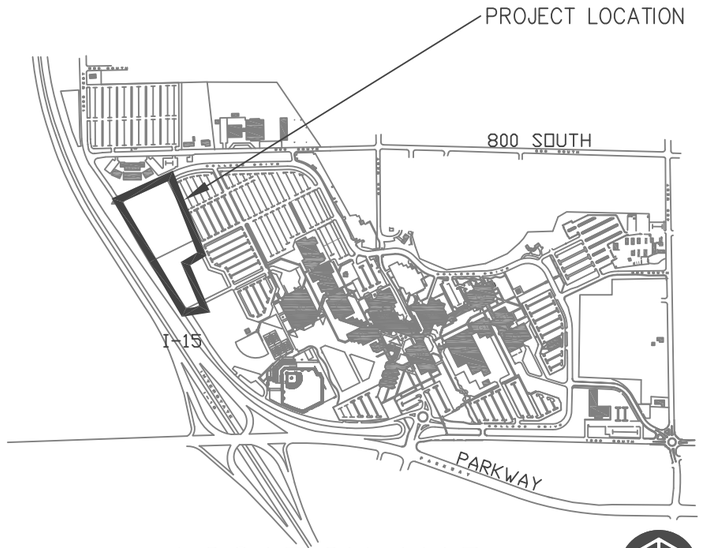
UTAH VALLEY UNIVERSITY
RETENTION BASIN
DFCM PROJECT NO. 07355790

UTAH VALLEY UNIVERSITY
800 WEST UNIVERSITY PARKWAY
OREM, UTAH

SHEET NUMBERING

SHEET	NAME
G-001	TITLE SHEET AND LOCATION MAP
G-002	SHEET INDEX AND NOTES
C-101	SD MAIN PLAN & PROFILE
C-102	SD MAIN PLAN & PROFILE
C-104	SD PRESSURE LINE
C-105	SD PRESSURE LINE
C-107	GRADING
C-108	GRADING
C-501	DETAILS
C-502	DETAILS
	APWA STD PLAN 330

VICINITY MAP



LOCATION MAP

King Engineering, Inc.
2825 E Cottonwood Parkway
Salt Lake City, Utah 84121
Phone: 801.990.3170
Fax: 801.990.3293
Internet: www.pavementmanagement.com

CREATED BY: KING ENGINEERING, INC.

REGISTERED PROFESSIONAL ENGINEER — 179735 — JONATHAN E. KING — STATE OF UTAH

SITE/LOCATION:
UTAH VALLEY UNIVERSITY

PROJECT TITLE:
UVU RETENTION

MARK	DATE	DESCRIPTION

ISSUE TYPE: BID SET

ISSUE DATE: NOVEMBER 4, 2008

DFCM PROJECT NO: 07355790
CAD PROJECT NO:
CAD DWG FILE: KE1117NCSSHEET.DWG
DRAWN BY: JEK
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SHEET TITLE
TITLE SHEET AND LOCATION MAP

SHEET NUMBER
G-001

SHEET 1 OF 11

GENERAL CONSTRUCTION NOTES:

1. ALL CONSTRUCTION SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF UTAH VALLEY UNITERSITY AND OREM CITY. IN ADDITION, ALL WORK SHALL COMPLY WITH THE PROJECT DRAWINGS AND PROJECT SPECIFICATIONS. IF CONFLICTS ARE NOTED, CONTRACTOR SHALL CONTACT ENGINEER PRIOR TO START OF CONSTRUCTION.

2. CONTRACTOR SHALL COORDINATE WITH ALL GOVERNING AGENCIES FOR ALL PERMITS AND BONDS REQUIRED FOR CONSTRUCTION. CONTRACTOR SHALL ALSO BE RESPONSIBLE TO COORDINATE WITH APPROPRIATE AUTHORITIES FOR INSPECTION AND REVIEW OF WORK.

3. CONTRACTOR IS RESPONSIBLE FOR ALL PROJECT SAFETY, INCLUDING, BUT NOT LIMITED TO TRENCHING AND SHORING, TRAFFIC CONTROL AND SECURITY.

4. CONSTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN UP-TO-DATE "AS-BUILT" DRAWINGS THROUGHOUT THE PROJECT. THESE DRAWINGS SHALL BE PROVIDED TO THE OWNER UPON COMPLETION OF THE PROJECT.

5. CONTRACTOR IS CAUTIONED THAT THE LOCATION AND ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE DRAWINGS IS BASED ON RECORDS PROVIDED TO THE ENGINEER AND ARE NOT GUARANTEED TO BE EITHER ACCURATE OR COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL UTILITIES AND SERVICE LATERALS AND FOR REPAIRING ALL DAMAGE THAT OCCURS TO THE UTILITY DURING CONSTRUCTION. CONTRACTOR SHALL CONTACT BLUE STAKES AND UVU 48 HOURS IN ADVANCE OF DIGGING.

6. THE CONTRACTOR WILL VERIFY LOCATIONS OF UTILITIES IN THE FIELD BY POTHOLING A AHEAD OF PIPELINE CONSTRUCTION TO AVOID CONFLICTS WITH DESIGN PIPELINE GRADE AND ALIGNMENT. IF A CONFLICT ARISES RESULTING FROM THE CONTRACTOR'S NEGLIGENCE TO POT HOLE UTILITIES, THE CONTRACTOR SHALL BE REQUIRED TO RESOLVE THE CONFLICT WITHOUT ADDITIONAL COST OR CLAIM TO OWNER.

7. CONTRACTOR SHALL TAKE THE NECESSARY MEASURES TO PROTECT ALL FACILITIES (I.E. PIPES, STRUCTURES, ETC.) DURING CONSTRUCTION UNTIL THE DESIGN GRADE AND COVER HAS BEEN ATTAINED AND WORK HAS BEEN ACCEPTED.

8. CONTRACTOR SHALL VERIFY ALL EXISTING PROJECT MONUMENTS AND CONTROL, AND NOTIFY ENGINEER OF ANY PROBLEMS PRIOR TO START OF CONSTRUCTION. CONTRACTOR SHALL MAINTAINING OR RESTORING ALL MONUMENTS AND MONUMENT REFERNCE MARKS WITHIN THE PROJECT SITE.

9. CONTRACTOR SHALL BE RESPONSIBLE FOR DUST AND EROSION CONTROL 24 HOURS PER DAY UNTIL VEGETATION IS ESTABLISHED, AND MAINTAIN UNIMPEDED ACCESS ROAD MAINTENANCE IN ACCORDANCE WITH CITY STANDARDS.

10. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY TRAFFIC CONTROL DURING THE CONSTRUCTION OF THE PROJECT, UNTIL WORK IS APPROVED AND ACCEPTED BY OWNER.

11. ALL TRAFFIC CONTROL (I.E. SIGNAGE, STRIPING AND PAVEMENT MARKINGS) SHALL CONFORM TO THE MOST CURRENT EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

12. THE CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION LAYOUT AND STAKING.

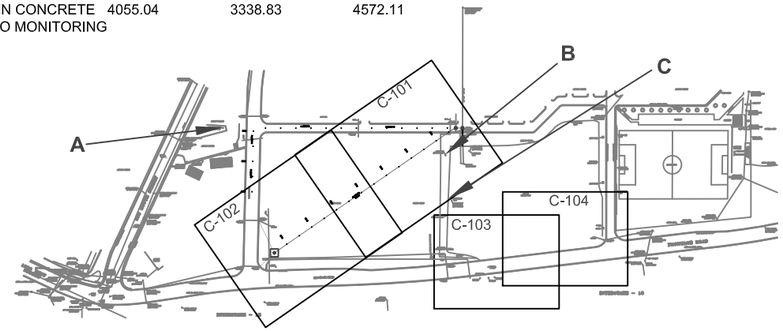
13. THE CONTRACTOR SHALL NOTIFY UVU AND DFCM STAFF 48 HOURS PRIOR TO EXCAVATING.

14. THE CONTRACTOR SHALL PROVIDE AND ON-SITE TOILET FOR THE DURATION OF THE PROJECT.

SURVEY CONTROL:

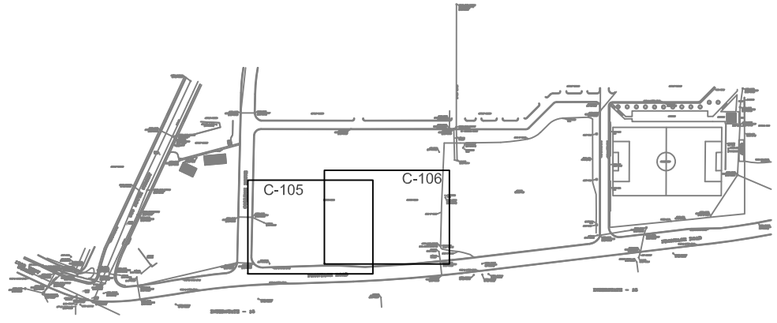
THE FOLLOWING CONTROL POINTS ARE LOCATED AT THE PROJECT. QUESTIONS REGARDING SURVEY CONTROL SHALL BE DIRECTED TO NOEL EVANS AT FRANCOM AND ASSOCIATES AT 295-7500.

POINT	DESCRIPTION	NORTHING	EASTING	ELEVATION
A	HUB AND TACK	4815.93	3043.06	4581.05
B	REBAR	4119.11	3291.20	4573.35
C	REBAR IN CONCRETE (NEXT TO MONITORING WELL)	4055.04	3338.83	4572.11



SHEET INDEX – PIPING

NORTH



SHEET INDEX– GRADING

NORTH

King Engineering, Inc.
2825 E Cottonwood Parkway
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Internet: www.pavementmanagement.com

CREATED BY: KING ENGINEERING, INC.

REGISTERED PROFESSIONAL ENGINEER — 179735 — JONATHAN E. KING — STATE OF UTAH

SITE/LOCATION:

UTAH VALLEY UNIVERSITY

PROJECT TITLE:

UVU RETENTION

MARK	DATE	DESCRIPTION

ISSUE TYPE: BID SET

ISSUE DATE: NOVEMBER 4, 2008

DFCM PROJECT NO: 07355790
CAD PROJECT NO:
CAD DWG FILE: KE1117NCSSHEET.DWG
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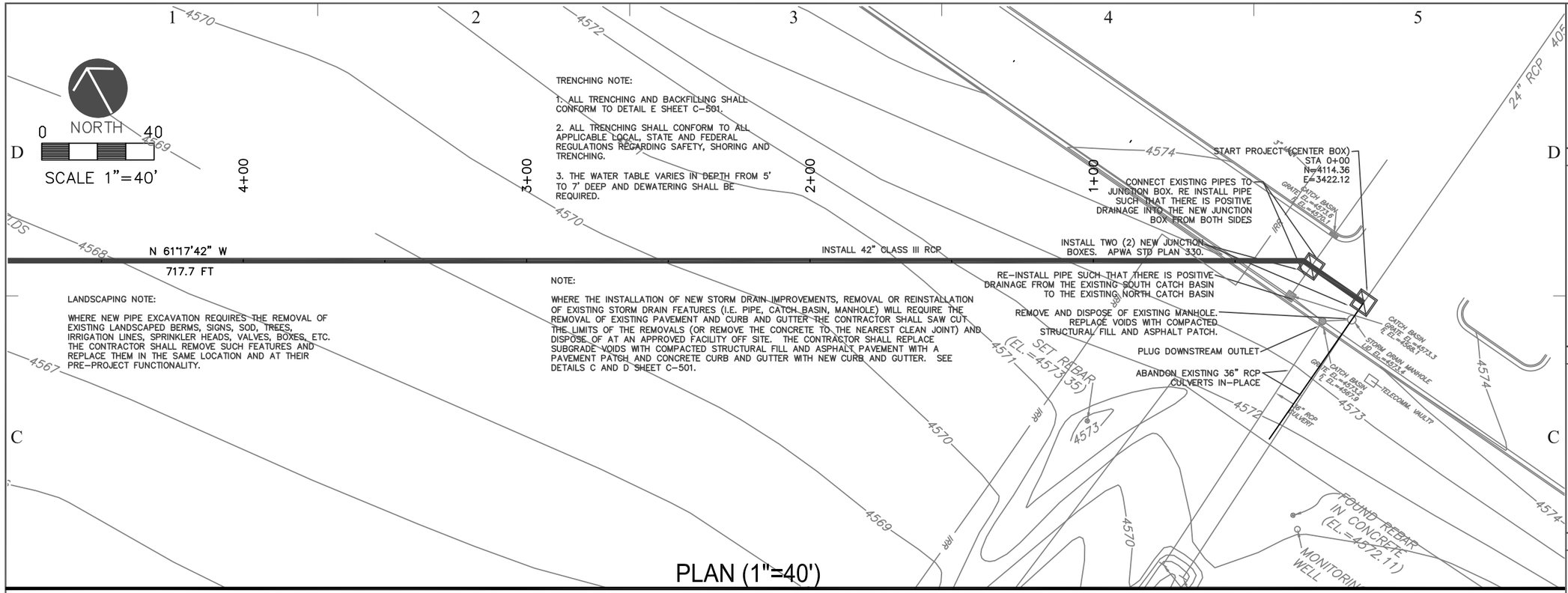
SHEET TITLE

SHEET INDEX AND NOTES

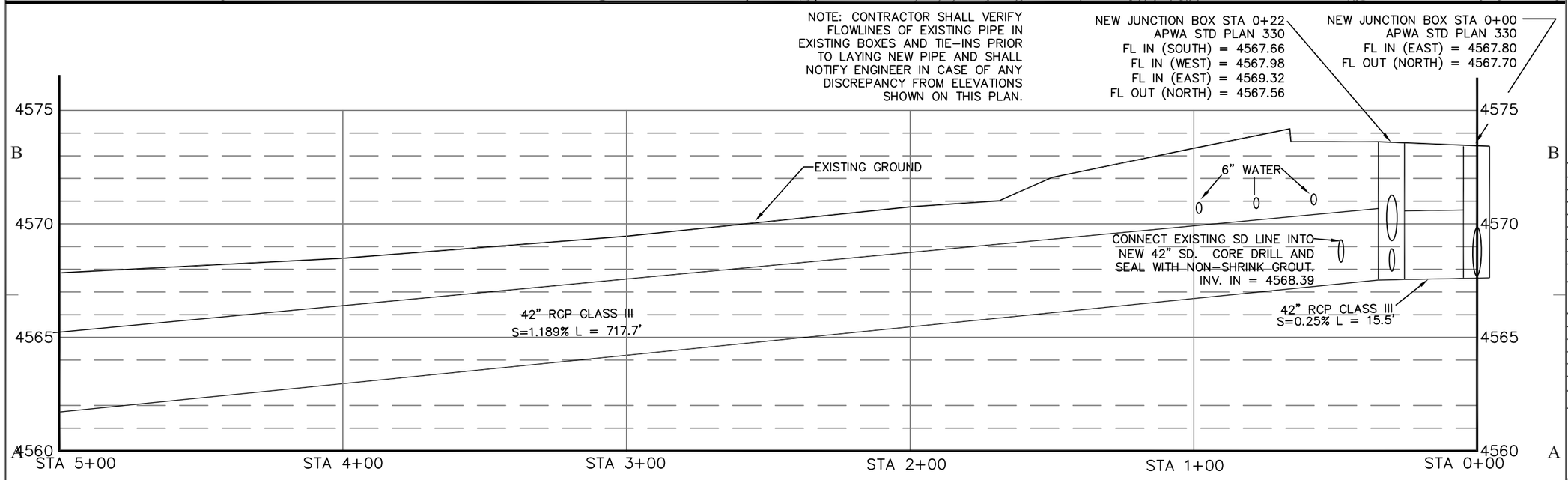
SHEET NUMBER

G-001

SHEET 2 OF 11



PLAN (1"=40')



PROFILE (H 1"=40' : V 1"=5')

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Salt Lake City, Utah 84121
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MARK	DATE	DESCRIPTION

ISSUE TYPE: BID SET

ISSUE DATE: NOVEMBER 4, 2008

DFCM PROJECT NO: 07355790
CAD PROJECT NO:
CAD DWG FILE: C-101.DWG
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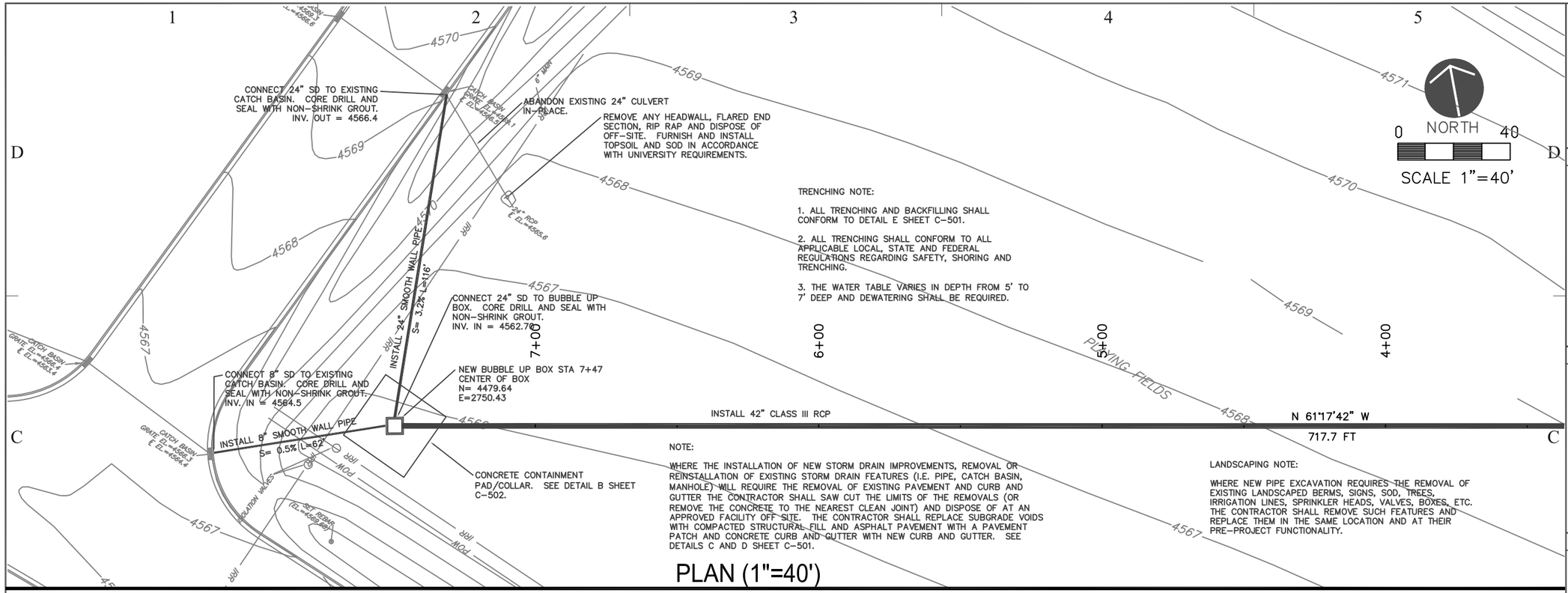
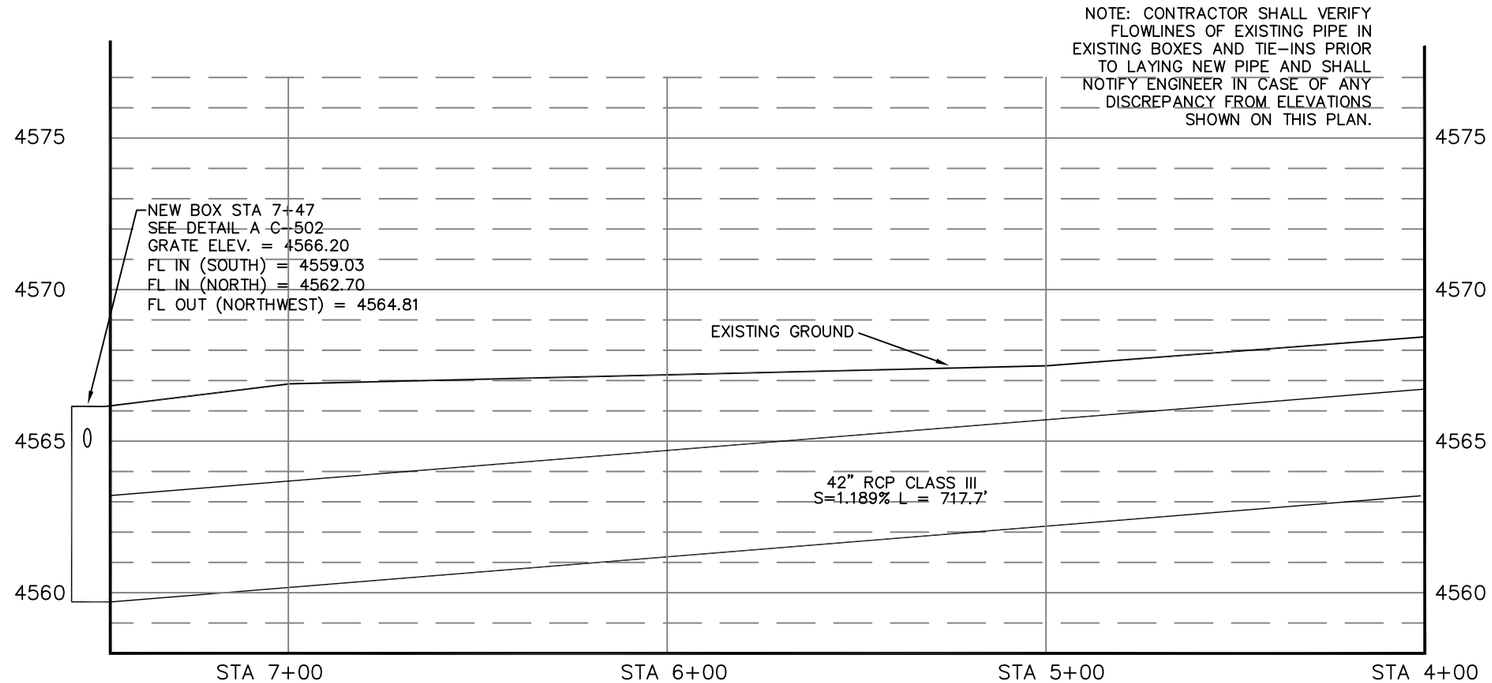
SHEET TITLE
SD MAIN PLAN & PROFILE

SHEET NUMBER
C-101

SHEET 3 OF 11



PLAN (1"=40')



PROFILE (H 1"=40' : V 1"=5')

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CREATED BY: KING ENGINEERING, INC.

REGISTERED PROFESSIONAL ENGINEER — 179785 — JONATHAN E. KING — STATE OF UTAH

SITE/LOCATION:

UTAH VALLEY UNIVERSITY

PROJECT TITLE:

UVU RETENTION

MARK	DATE	DESCRIPTION

ISSUE TYPE: BID SET

ISSUE DATE: NOVEMBER 4, 2008

DFCM PROJECT NO: 07355790
CAD PROJECT NO:
CAD DWG FILE: C-102.DWG
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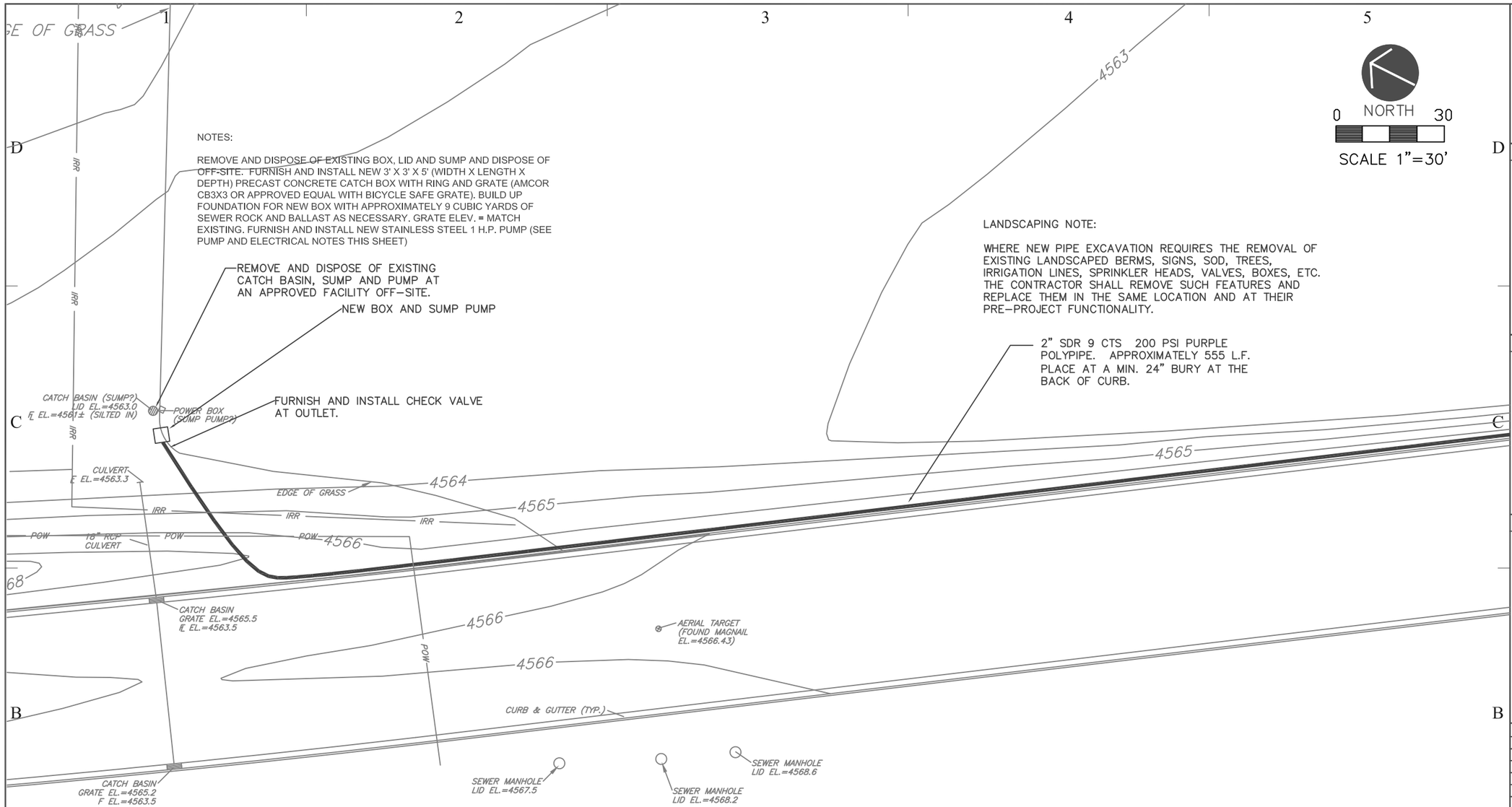
SHEET TITLE

SD MAIN
PLAN & PROFILE

SHEET NUMBER

C-102



NOTES:

REMOVE AND DISPOSE OF EXISTING BOX, LID AND SUMP AND DISPOSE OF OFF-SITE. FURNISH AND INSTALL NEW 3' X 3' X 5' (WIDTH X LENGTH X DEPTH) PRECAST CONCRETE CATCH BOX WITH RING AND GRATE (AMCOR CB3X3 OR APPROVED EQUAL WITH BICYCLE SAFE GRATE). BUILD UP FOUNDATION FOR NEW BOX WITH APPROXIMATELY 9 CUBIC YARDS OF SEWER ROCK AND BALLAST AS NECESSARY. GRATE ELEV. = MATCH EXISTING. FURNISH AND INSTALL NEW STAINLESS STEEL 1 H.P. PUMP (SEE PUMP AND ELECTRICAL NOTES THIS SHEET)

REMOVE AND DISPOSE OF EXISTING CATCH BASIN, SUMP AND PUMP AT AN APPROVED FACILITY OFF-SITE.

NEW BOX AND SUMP PUMP

FURNISH AND INSTALL CHECK VALVE AT OUTLET.

LANDSCAPING NOTE:

WHERE NEW PIPE EXCAVATION REQUIRES THE REMOVAL OF EXISTING LANDSCAPED BERMS, SIGNS, SOD, TREES, IRRIGATION LINES, SPRINKLER HEADS, VALVES, BOXES, ETC. THE CONTRACTOR SHALL REMOVE SUCH FEATURES AND REPLACE THEM IN THE SAME LOCATION AND AT THEIR PRE-PROJECT FUNCTIONALITY.

2" SDR 9 CTS 200 PSI PURPLE POLYPIPE. APPROXIMATELY 555 L.F. PLACE AT A MIN. 24" BURY AT THE BACK OF CURB.

PUMP AND ELECTRICAL REQUIREMENTS:

1. THE PUMP SHALL BE SUBMERSIBLE, A MINIMUM 1 H.P. STAINLESS STEEL (CASING, IMPELLER, SHAFT, MOTOR FRAME AND FASTENERS), HIGH HEAD, 1" SOLIDS HANDLING CAPABILITY PUMP THAT FUNCTIONS WITH 110 VOLT POWER.
2. THE PUMP SHALL HAVE THE CAPACITY TO BE INSTALLED ON A CONCRETE WALL USING A SLIDE RAIL SYSTEM AND SHALL BE INSTALLED IN A NEW PRECAST CONCRETE CATCH BOX FURNISHED AND INSTALLED BY THE CONTRACTOR. THE PUMP SHALL BE INSTALLED INSIDE OF THE NEW CATCH BOX USING A SLIDE RAIL SYSTEM RECOMMENDED BY THE MANUFACTURER AND FURNISHED AND INSTALLED BY THE CONTRACTOR ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.
3. THE PUMP SHALL BE ACTUATED BY A FLOAT MECHANISM TRIGGERED WHEN THE WATER LEVEL REACHES 6" BELOW THE BOTTOM OF THE GRATE IN THE NEW CATCH BOX.
4. POWER TO THE PUMP SHALL BE SUPPLIED BY THE EXISTING POWER LINE LOCATED IN THE VICINITY OF THE NEW BOX AS SHOWN ON THE PLAN. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL NECCESARY WIRING, CONDUIT, CONNECTIONS, AND LABOR TO CONNECT THE NEW PUMP TO THE PANEL FOLLOWING ALL STATE AND FEDERAL CODES AND REGULATIONS.
5. THE CONTRACTOR SHALL VERIFY THE TYPE AND AVAILABILITY OF POWER BEFORE ORDERING THE PUMP. THE CONTRACTOR SHALL VERIFY THE CURRENT ELECTRICAL SOURCE HAS CAPACITY TO PROVIDE POWER BEFORE ORDERING PUMP.
6. POWER CIRCUITS CONNECTING EXISTING POWER LINE AND PUMP SHALL BE LOCATED IN 3/4" PVC CONDUIT WITH A MINIMUM BURY OF 24".
7. CONTRACTOR SHALL INSTALL PUMP SUCH THAT AFTER INSTALLATION THE PUMP SHALL PERFORM TO THE MANUFACTURER'S SPECIFICATIONS AND SHALL REMOVE EXCESS STORM WATER FROM THE NEW CATCH BOX AND TRANSPORT IT TO THE EXISTING 36" RCP CULVERT (SEE SHEET C-105).

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CREATED BY: KING ENGINEERING, INC.

REGISTERED PROFESSIONAL ENGINEER
#9735
JONATHAN E. KING
STATE OF UTAH

SITE/LOCATION:
UTAH VALLEY UNIVERSITY

PROJECT TITLE:
UVU RETENTION

MARK	DATE	DESCRIPTION

ISSUE TYPE: BID SET

ISSUE DATE: NOVEMBER 4, 2008

DFCM PROJECT NO: 07355790
CAD PROJECT NO:
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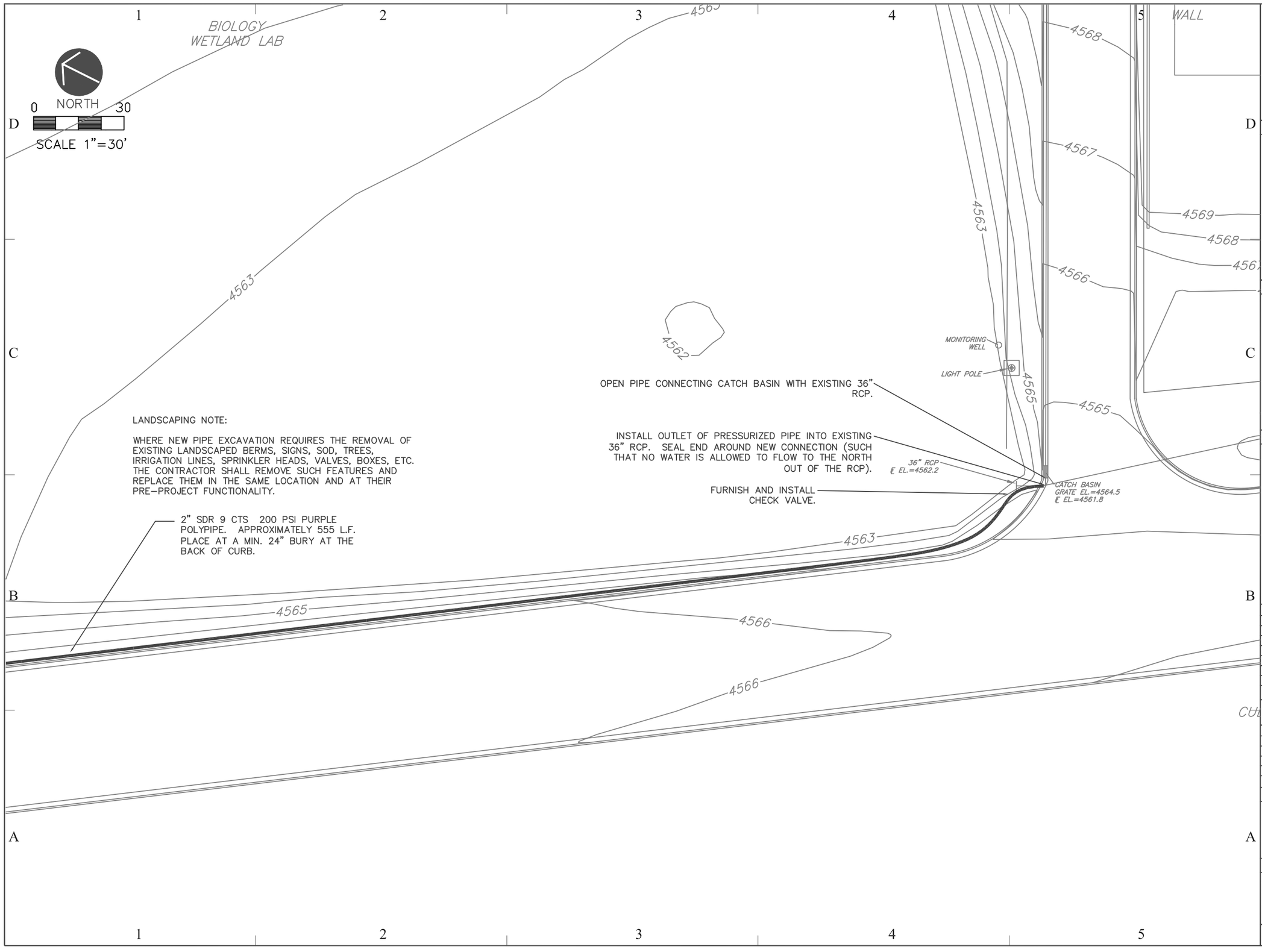
SHEET TITLE
SD PRESSURE LINE

SHEET NUMBER
C-103



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#9785
JONATHAN E. KING
STATE OF UTAH

SITE/LOCATION:
UTAH VALLEY UNIVERSITY

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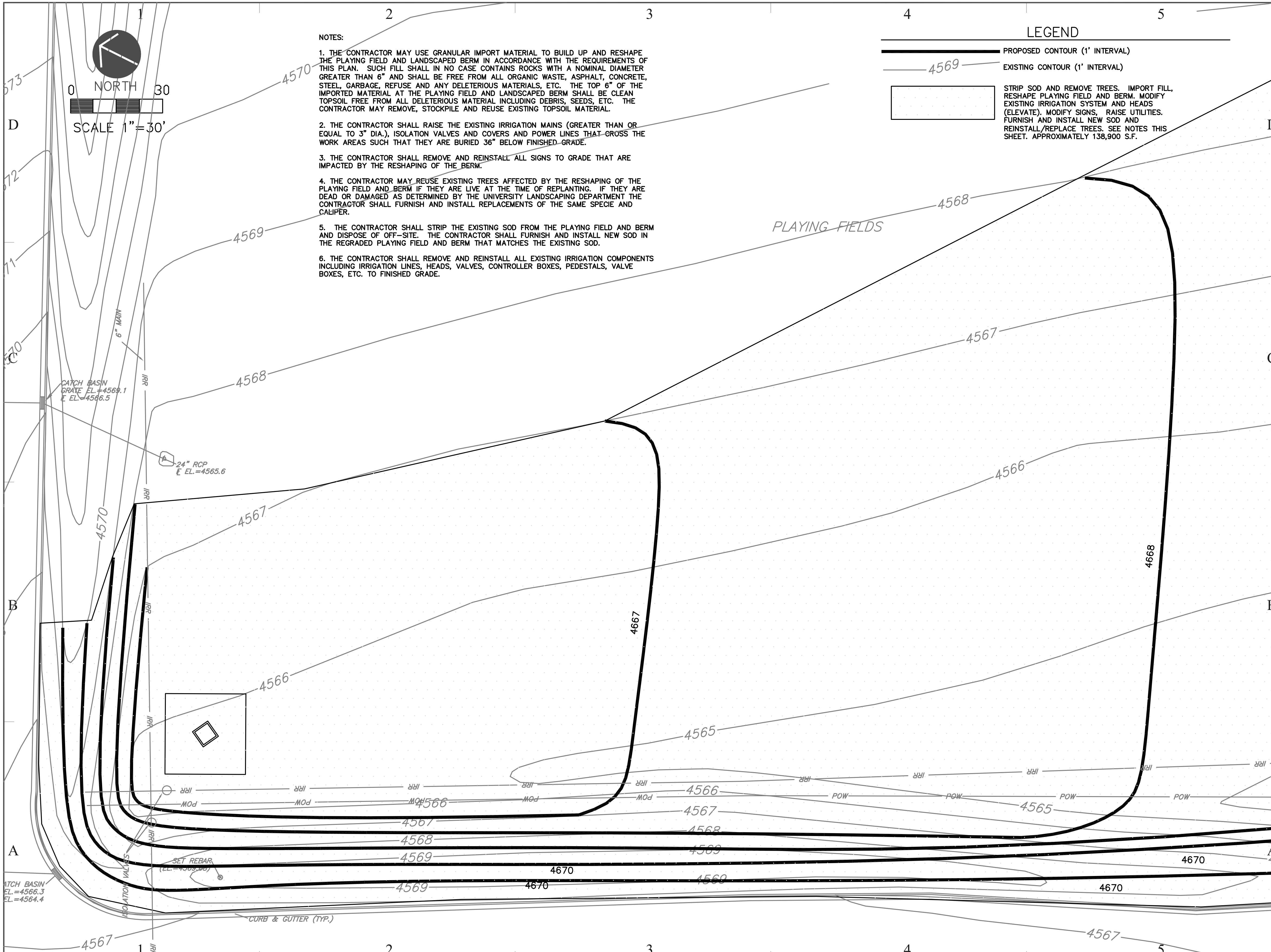
SHEET NUMBER
C-104

SHEET 6 OF 11



NOTES:

1. THE CONTRACTOR MAY USE GRANULAR IMPORT MATERIAL TO BUILD UP AND RESHAPE THE PLAYING FIELD AND LANDSCAPED BERM IN ACCORDANCE WITH THE REQUIREMENTS OF THIS PLAN. SUCH FILL SHALL IN NO CASE CONTAINS ROCKS WITH A NOMINAL DIAMETER GREATER THAN 6" AND SHALL BE FREE FROM ALL ORGANIC WASTE, ASPHALT, CONCRETE, STEEL, GARBAGE, REFUSE AND ANY DELETERIOUS MATERIALS, ETC. THE TOP 6" OF THE IMPORTED MATERIAL AT THE PLAYING FIELD AND LANDSCAPED BERM SHALL BE CLEAN TOPSOIL FREE FROM ALL DELETERIOUS MATERIAL INCLUDING DEBRIS, SEEDS, ETC. THE CONTRACTOR MAY REMOVE, STOCKPILE AND REUSE EXISTING TOPSOIL MATERIAL.

2. THE CONTRACTOR SHALL RAISE THE EXISTING IRRIGATION MAINS (GREATER THAN OR EQUAL TO 3" DIA.), ISOLATION VALVES AND COVERS AND POWER LINES THAT CROSS THE WORK AREAS SUCH THAT THEY ARE BURIED 36" BELOW FINISHED GRADE.

3. THE CONTRACTOR SHALL REMOVE AND REINSTALL ALL SIGNS TO GRADE THAT ARE IMPACTED BY THE RESHAPING OF THE BERM.

4. THE CONTRACTOR MAY REUSE EXISTING TREES AFFECTED BY THE RESHAPING OF THE PLAYING FIELD AND BERM IF THEY ARE LIVE AT THE TIME OF REPLANTING. IF THEY ARE DEAD OR DAMAGED AS DETERMINED BY THE UNIVERSITY LANDSCAPING DEPARTMENT THE CONTRACTOR SHALL FURNISH AND INSTALL REPLACEMENTS OF THE SAME SPECIE AND CALIPER.

5. THE CONTRACTOR SHALL STRIP THE EXISTING SOD FROM THE PLAYING FIELD AND BERM AND DISPOSE OF OFF-SITE. THE CONTRACTOR SHALL FURNISH AND INSTALL NEW SOD IN THE REGRADED PLAYING FIELD AND BERM THAT MATCHES THE EXISTING SOD.

6. THE CONTRACTOR SHALL REMOVE AND REINSTALL ALL EXISTING IRRIGATION COMPONENTS INCLUDING IRRIGATION LINES, HEADS, VALVES, CONTROLLER BOXES, PEDESTALS, VALVE BOXES, ETC. TO FINISHED GRADE.

LEGEND

PROPOSED CONTOUR (1' INTERVAL)

4569 — EXISTING CONTOUR (1' INTERVAL)

STRIP SOD AND REMOVE TREES. IMPORT FILL, RESHAPE PLAYING FIELD AND BERM. MODIFY EXISTING IRRIGATION SYSTEM AND HEADS (ELEVATE). MODIFY SIGNS, RAISE UTILITIES. FURNISH AND INSTALL NEW SOD AND REINSTALL/REPLACE TREES. SEE NOTES THIS SHEET. APPROXIMATELY 138,900 S.F.

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SITE/LOCATION:
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ISSUE DATE: NOVEMBER 4, 2008

DFCM PROJECT NO: 07355790
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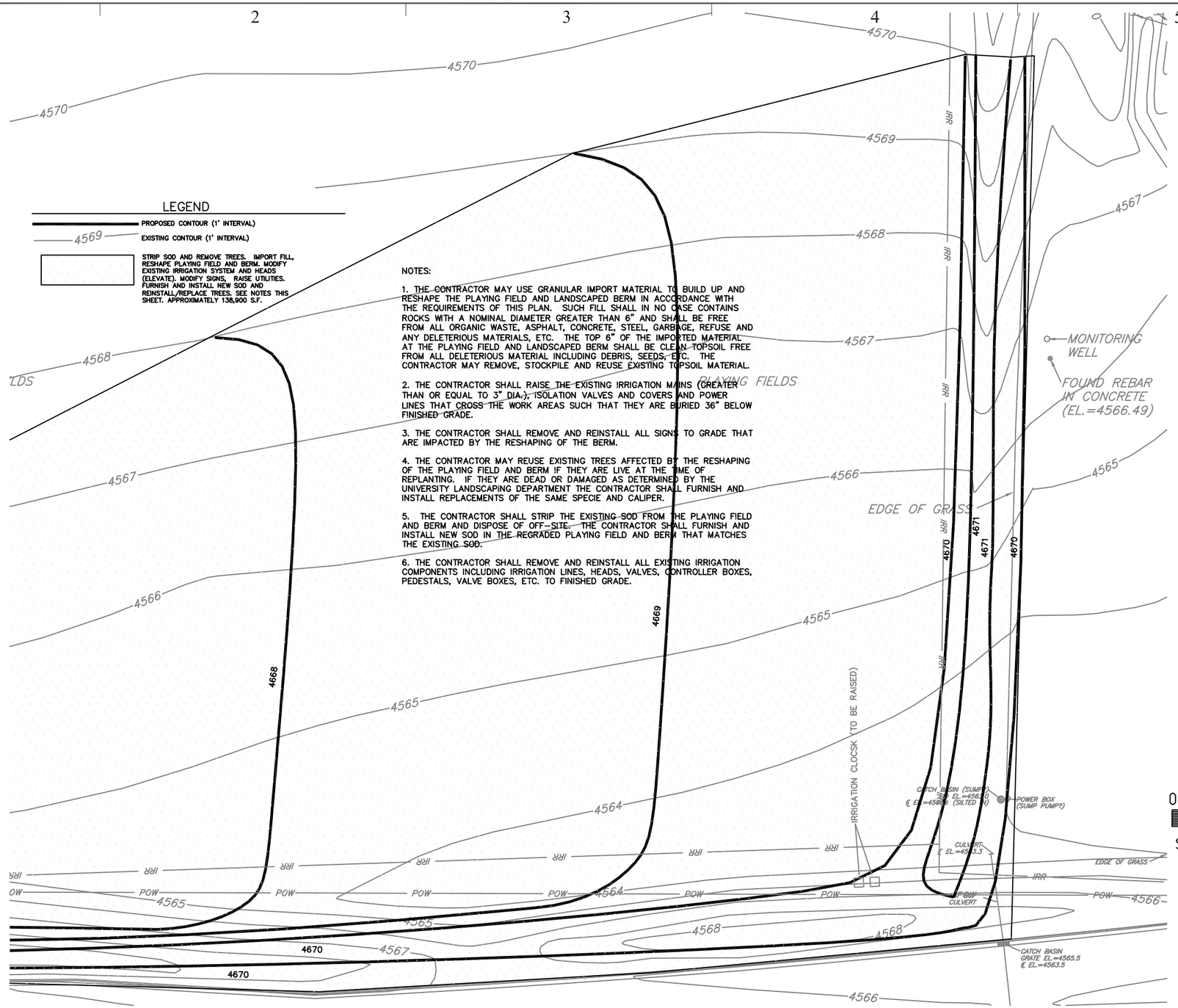
SHEET TITLE
GRADING

SHEET NUMBER
C-105

SHEET 7 OF 11



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CAD DWG FILE: C-106.DWG
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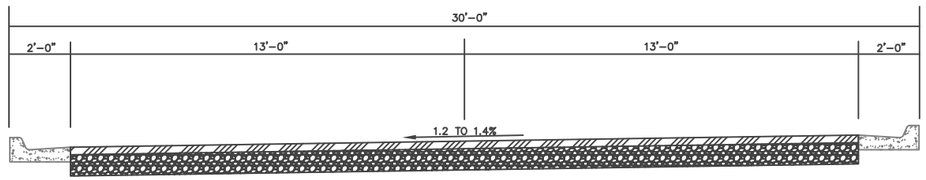
SHEET TITLE

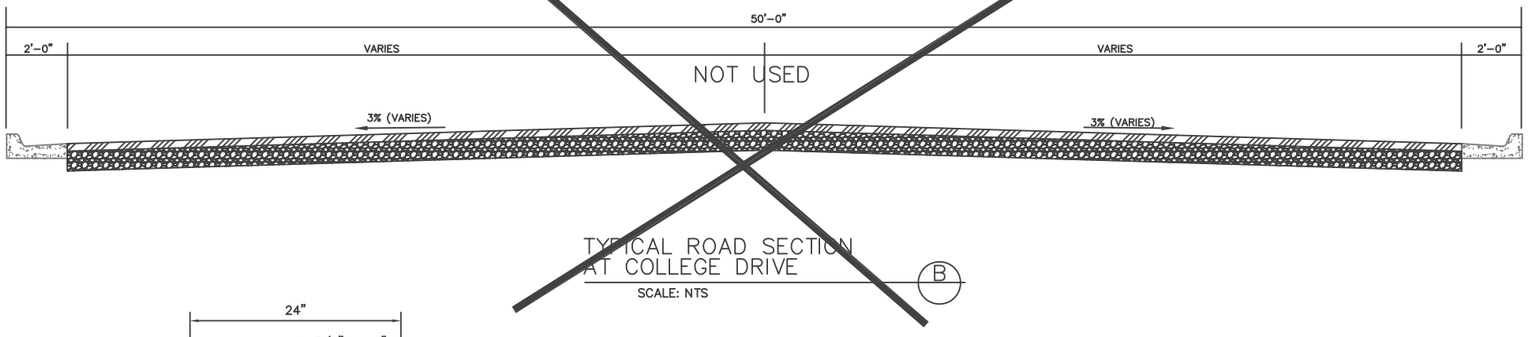
GRADING

SHEET NUMBER

C-106

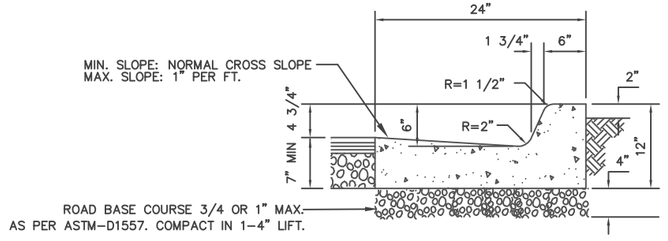


TYPICAL ROAD SECTION
STA 0+00 TO 6+67
SCALE: NTS
A



NOT USED

TYPICAL ROAD SECTION
AT COLLEGE DRIVE
SCALE: NTS
B



RECEIVING
CURB AND GUTTER
SCALE: NTS
C

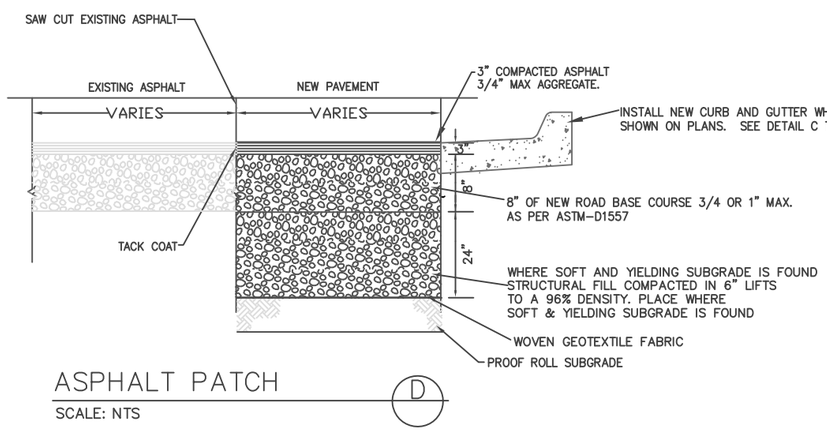
CONCRETE NOTE:

CONCRETE SHALL HAVE AN MINIMUM 28 DAY UNCONFINED COMPRESSIVE STRENGTH OF 4,000 POUNDS PER SQUARE INCH AND CONTAIN 5 PERCENT +/- 1PERCENT AIR ENTRAINMENT.

ALL SAW CUTS MUST BE COMPLETED WITHIN 24 HOURS OF THE "INITIAL SET" OF THE CONCRETE AND SHOULD BE PERFORMED UNDER THE DIRECTION OF THE CONCRETE PAVING CONTRACTOR.

INCLUDE PRO MESH FIBER MESH IN ALL CONCRETE MIX OR APPROVED EQUAL. ADD AT 1.5 LBS PER CUBIC YARD OF MIX. MIX WELL FOR A MINIMUM OF 5 MINUTES BEFORE PLACING. SEE SPECIFICATIONS FOR MIX REQUIREMENTS.

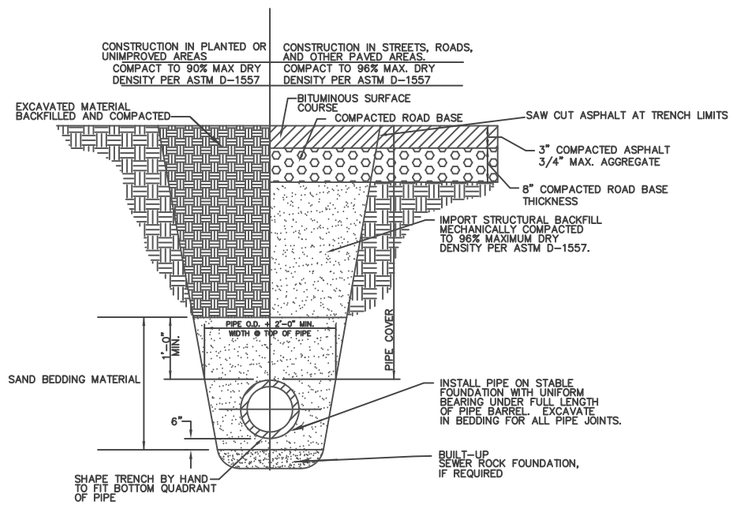
PLACE EXPANSION JOINTS AT ALL LOCATIONS WHERE NEW CONCRETE IS ABUTTING EXISTING CONCRETE PADS. PLACE EXPANSION JOINTS AT 40' INTERVALS ON ALL NEW CONCRETE.



ASPHALT PATCH
SCALE: NTS
D

PAVEMENT NOTES:

1. SOIL STERILENT SHALL BE PLACED ON THE PREPARED ROAD BASE BEFORE PAVING.



TYPICAL TRENCH
SCALE: NTS
E

King Engineering, Inc.
2825 E Cottonwood Parkway
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Phone: 801.990.3170
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CREATED BY: KING ENGINEERING, INC.

SITE/LOCATION:
UTAH VALLEY UNIVERSITY

PROJECT TITLE:
UVU RETENTION

MARK	DATE	DESCRIPTION

ISSUE TYPE: BID SET

ISSUE DATE: NOVEMBER 4, 2008

DFCM PROJECT NO: 07355790
CAD PROJECT NO:
CAD DWG FILE: C-501.DWG
DRAWN BY: AD
CHK'D BY: JEK
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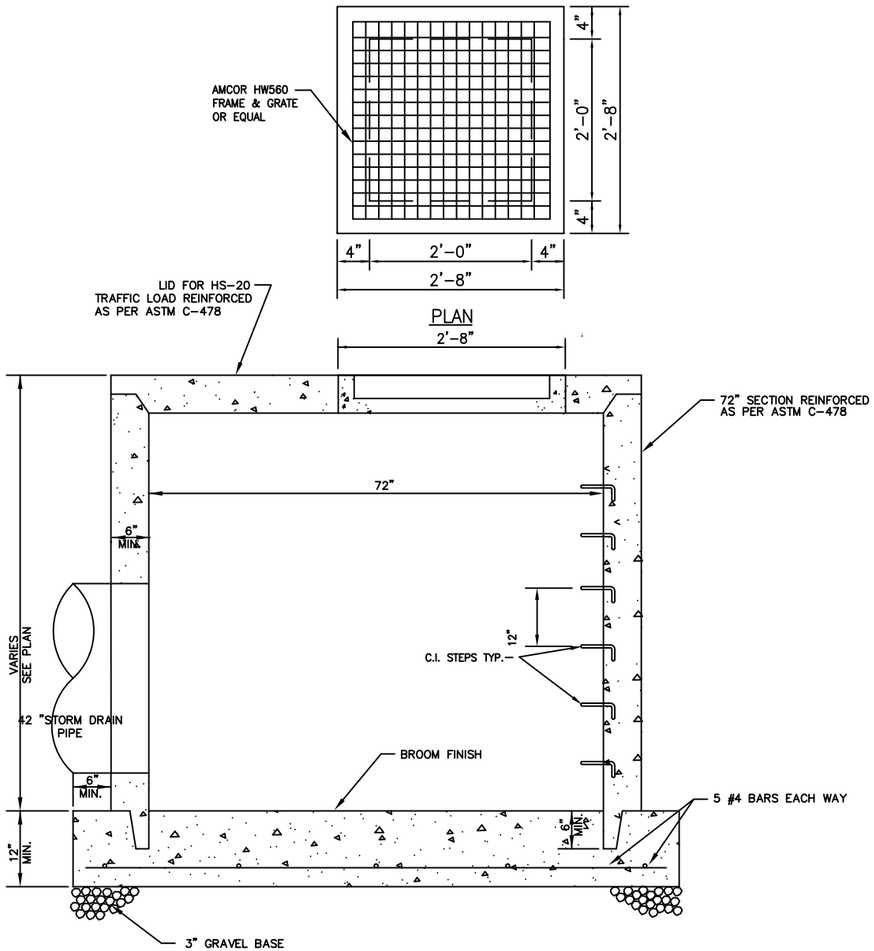
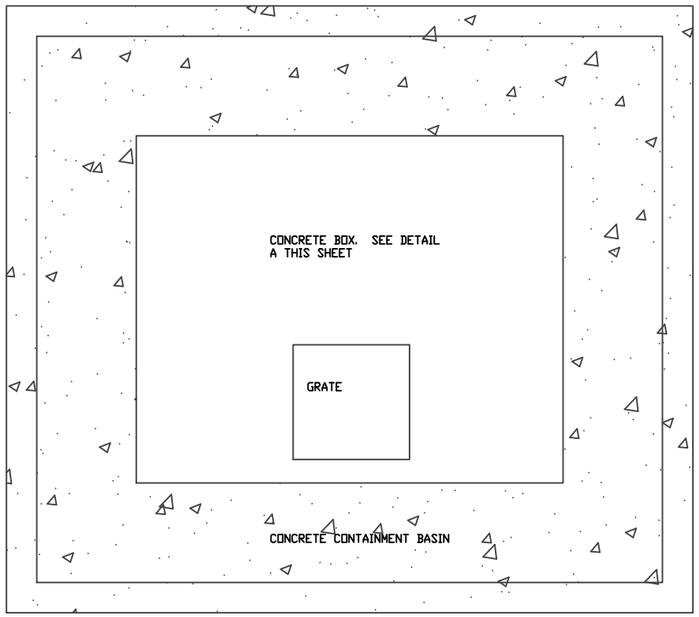
SHEET TITLE
DETAILS

SHEET NUMBER
C-501

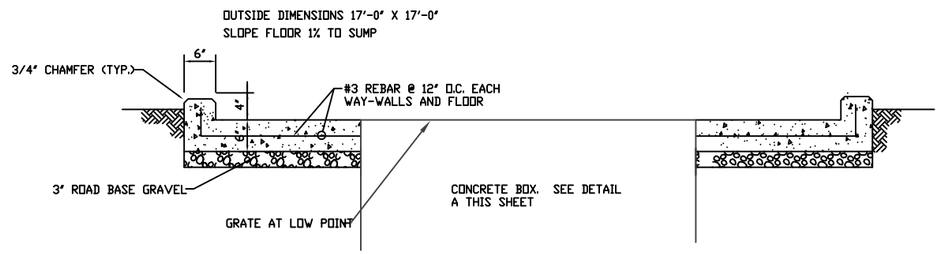


CONCRETE
BUBBLE UP BOX (A)

SCALE: NTS



PLAN



SECTION

CONCRETE
CONTAINMENT BASIN (B)

SCALE: NTS

NOTES:

1. THE CONTRACTOR MAY USE THE CAST-IN-PLACE CONCRETE BUBBLE UP BOX SHOWN OR A PRECAST MODEL AS APPROVED BY THE ENGINEER.
2. ALL BOXES AND GRATES SHALL BE RATED TO AN HS-20 LOADING.
3. 4000 PSI CONCRETE 6 ½ BAG MIX.
4. GRATE SHALL BE LOCKABLE.

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SITE/LOCATION:
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PROJECT TITLE:
UVU RETENTION

MARK	DATE	DESCRIPTION

ISSUE TYPE: BID SET

ISSUE DATE: NOVEMBER 4, 2008

DFCM PROJECT NO: 07355790
CAD PROJECT NO:
CAD DWG FILE: C-502.DWG
DRAWN BY: AD
CHK'D BY: JEK
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SHEET TITLE
DETAILS

SHEET NUMBER
C-502

SHEET 10 OF 11

Cleanout box

1. UNTREATED BASE COURSE: Provide material specified in APWA Section 02060. Do not use gravel or sewer rock. Place per APWA Section 02321. Compact per APWA Section 02324 to a modified proctor density of 95-percent or greater. Maximum lift thickness is 8-inches before compaction.

2. BACKFILL: Provide and place per APWA Section 02321. Compact per APWA Section 02324 to a modified proctor density of 95-percent or greater. Maximum lift thickness is 8-inches before compaction.

3. REINFORCEMENT: ASTM A 615, grade 60, deformed steel. See APWA Section 03200 requirements. Center steel in walls and slabs with a minimum cover of 2". Keep steel 2" clear around pipe and lid opening. A1 bars required at all corners, vertical and horizontal. A1 bars connecting two walls must match wall bar size and spacing. A1 bars connecting walls to top and bottom slabs must match slab steel size and spacing.

4. CONCRETE: Class 4000 per APWA Section 03304. Place per APWA Section 03310. Cure per APWA Section 03390.

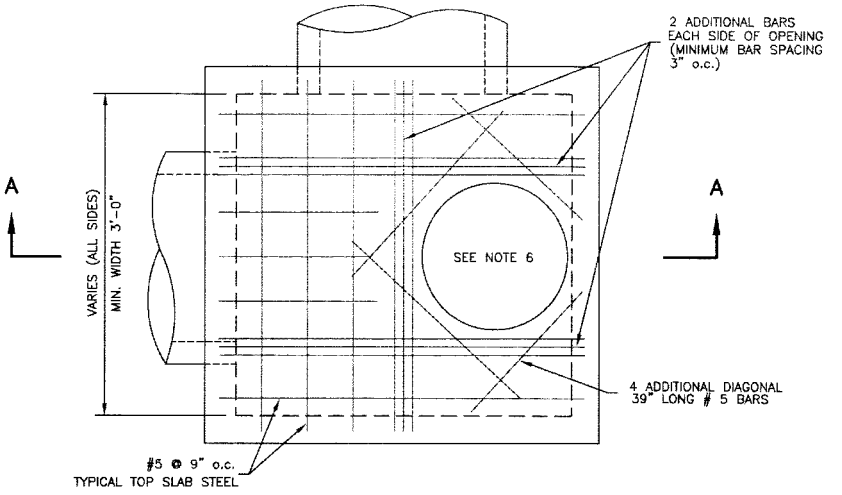
5. PIPE LATERALS: Refer to Drawings for connection locations.

6. ACCESS: Eccentric access is shown. Prior to construction, verify if concentric access is required. Adjust reinforcement accordingly.

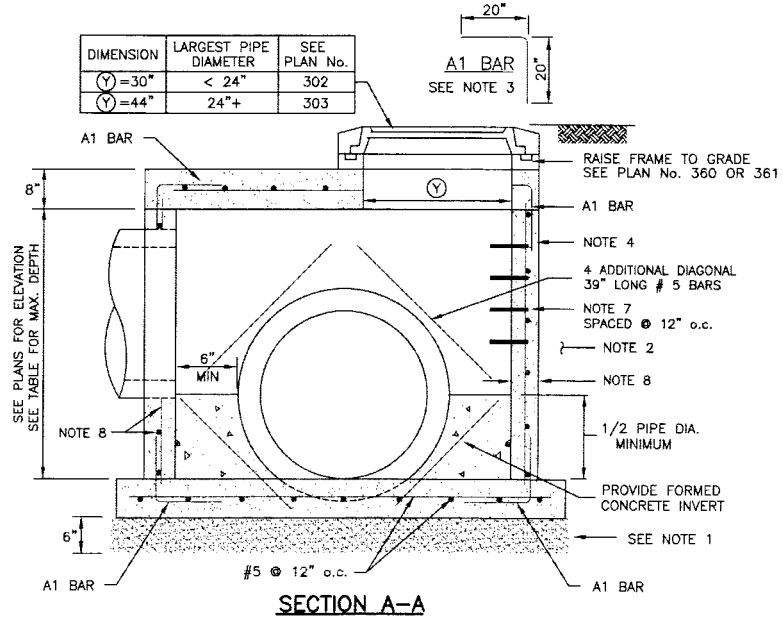
7. LADDER RUNGS: Plastic. Required in boxes greater than 6 feet deep with eccentric access. Align rungs with location of access opening. Rungs not required in boxes with concentric access.

8. WALL THICKNESS AND WALL STEEL

Low Water Table				
Max. Box Width	6-feet	8-feet	8-feet	9-feet
Max. Box Depth	6-feet	8-feet	12-feet	12-feet
Wall Thickness	8-inches	8-inches	12-inches	12-inches
Wall Curtain Steel	#5 @ 12"	#5 @ 6"	#5 @ 6"	#7 @ 9"
Modifications for High Water Table				
Wall Thickness	8-inches	10-inches	16-inches	12-inches
Wall Curtain Steel	#5 @ 9"	#5 @ 6"	#5 @ 6"	#6 @ 6"



BASE WITHOUT SUMP



DIMENSION	LARGEST PIPE DIAMETER	SEE PLAN No.
Ⓨ=30"	< 24"	302
Ⓨ=44"	24"+	303

SECTION A–A

Cleanout box

Plan No. **330**